IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

The Town of Middleborough has levels of PFAS6 above the Drinking Water Standard

This report contains important information about your drinking water. Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). Please translate it or speak with someone who understands it or ask the contact listed below for a translation.

The Town of Middleborough has not violated the drinking water regulations. A PFAS6 Maximum Contaminant Level (MCL) violation occurs when the average of all monthly samples collected over a calendar quarter exceeds the MCL. If our system had violated the PFAS6 MCL our system would have issued a PUBLIC NOTICE. Instead, we are required to provide you with this Public Education to make you aware of the elevated levels detected at the East Grove Street Well in August 2021, so you can make informed decisions about your drinking water while we continue to monitor the water supply.

On October 2, 2020, the Massachusetts Department of Environmental Protection (MassDEP) promulgated a new drinking water regulation and MCL of 20 nanograms per liter (ng/L) for the sum of six per- and polyfluoroalkyl substances (called PFAS6). (see information on PFAS6 below). This regulation required our public water system to begin sampling for PFAS6 in April of 2021. However, our water system took advantage of a free MassDEP PFAS sampling program to proactively and voluntarily sample for PFAS6 prior to the new regulations taking effect.

What have we learned through our sampling/testing efforts?

Middleborough recently received the MassDEP validated PFAS6 results for the East Grove Street Well sample. After averaging the recent months of sampling (see the table below), our August results are above the MCL, but a violation has not occurred because the quarterly average is below the MCL.

PFAS6 Results for Middleborough East Grove Street Well					
Quarterly Compliance Period	**Monitoring Period**	**Sample Collection Date**	**PFAS6 Result (ng/L)**	**Quarterly Average (ng/L)**	**PFAS 6 MCL (ng/L)**
Quarter 1, 2021	Month 1	1/17/21	12.13	14.17	20
	Month 2	2/17/21	15.43		
	Month 3	3/1/21	14.95		
Quarter 2, 2021	Month 1	4/9/21	10.87	7.67	20
	Month 2	5/5/21	5.65		
	Month 3	6/2/21	6.50		
Quarter 3, 2021	Month 1	7/28/21	17.49	17.54	20
	Month 2	8/26/21	**20.80**		
	Month 3	9/10/21	14.32		
*If any sample result would cause the quarterly average to exceed the MCL, the PFAS6 MCL has been violated.					

What does this mean?

This is not an emergency. If it had been, you would have been notified within 24 hours. Although this is not an emergency, as our customer, you have a right to know what happened, what you should do, and what we did and are doing to correct this situation.

Some people who drink water containing these PFAS6 in excess of the MCL may experience certain adverse effects. These could include effects on the liver, blood, immune system, thyroid, and fetal development. These PFAS6 may also elevate the risk of certain cancers.

For more information about PFAS6, see the attached fact sheet and weblinks listed below.

What do I need to do?

- Consumers in a sensitive subgroup (pregnant or nursing women, infants and people diagnosed by their health care provider to have a compromised immune system), are advised not to consume, drink, or cook with water with a level of PFAS6 is above 20 ng/L.
- Consumers in sensitive subgroups are advised to use bottled water for drinking and cooking of foods that absorb water (like pasta). A list of companies that voluntarily tested their water for PFAS and shared the results can be found on MassDEP's website at https://www.mass.gov/info-details/water-quality-standards-for-bottled-water-in-massachusetts#list-of-bottlers-
- For infant formula, use bottled water or use formula that does not require adding water.
- For older children and adults not in a sensitive subgroup. the 20 ng/L value is applicable to a lifetime of consuming the water. For these groups, shorter duration exposures present less risk. However, if you are concerned about your exposure while steps are being taken to assess and lower the PFAS6 concentration in the drinking water, use of bottled water will reduce your exposure.
- See What is being done? See the section below for more information.
- Bottled water should only be used if it has been tested. A list of companies that voluntarily tested their water for PFAS and shared the results can be found on MassDEP's website at https://www.mass.gov/info-details/water-quality-standards-for-bottled-water-in-massachusetts#list-of-bottlers-
- Some home water treatment systems used to treat/filter individual faucets or entire homes can or may be able to lower the level of PFAS6 in drinking water. Our public water system has not evaluated any home treatment systems or devices to determine their efficacy to remove and maintain PFAS6 below 20 ng/L and is not aware of a currently available home treatment system or a device shown to meet the Massachusetts drinking water standard for PFAS6 of 20 ng/L. Therefore, when deciding on home water treatment and PFAS6, you should be aware of the specific information on home water treatment systems and PFAS6. See the specific information on home water treatment and PFAS6 at the links below.
- In most situations the water can be safely used for washing foods, brushing teeth, bathing, and showering.
- Boiling the water will not destroy PFAS6 and will somewhat increase its level due to evaporation of some of the water.
- If you have specific health concerns regarding exposure, you should see the Centers for Disease Control's link below and consult a health professional, such as your doctor.

** 10/20/21 Updated link provided by Massachusetts Department of Environmental Protection

What is being done?

Currently, the Town of Middleborough is investigating water treatment and other options. In a **short-term effort** to address PFAS6 detected at the East Grove Street Well, we immediately involved our Engineers and notified MassDEP. We quickly developed a potential method of Water Treatment to remove the existing PFAS6, and we are currently reviewing and working on permitting methods to further optimize the treatment to obtain significant PFAS6 removal. This is a work in progress as we explore all feasible avenues to improve PFAS6 removal methods. We will continue to monitor and address the PFAS6 detects and will apply the best possible method for long-term corrective action.

Where can I get more information?

For more information, please contact our PFAS Team listed below. Please also refer to our attached PFAS6 Fact Sheet.

Michael Bumpus, Superintendent,
Water Department (508) 946-2482

PFAS6 Facts:

What is PFAS? Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals that includes perfluorooctanoic acid (PFOA), perfluorooctane sulfonic acid (PFOS), GenX, and many other chemicals. **PFAS6** refers to the sum of six PFAS compounds, including PFOA, PFOS, perfluorononanoic acid (PFNA), perfluorohexane sulfonic acid (PFHxS), perfluorodecanoic acid (PFDA) and perfluoroheptanoic acid (PFHpA) that together make up the MassDEP MCL. PFAS have been manufactured and used in a variety of industries around the globe, including in the United States since the 1940s. PFOA and PFOS have been the most extensively produced and studied of these chemicals. Both chemicals are very persistent in the environment and in the human body - meaning they do not break down and they can accumulate over time. Although PFOA and PFOS are no longer manufactured in the United States, they are still produced internationally and can be imported in consumer goods such as carpet, leather and apparel, textiles, paper and packaging, coatings, rubber and plastics. As a result, they are widely found in the environment where they migrate to the food supply and drinking water.
PFAS can be found in:

- **Food** packaged in PFAS-containing materials, processed with equipment that used PFAS, or grown in PFAS-contaminated soil or water.
- **Commercial household products,** including stain- and water-repellent fabrics, nonstick products (e.g., Teflon), polishes, waxes, paints, cleaning products, and fire-fighting foams (a major source of groundwater contamination at airports and military bases where firefighting training occurs).
- **Workplace,** including production facilities or industries (e.g., chrome plating, electronics manufacturing, or oil recovery) that use PFAS.
- **Drinking water,** typically localized and associated with a specific facility (e.g., manufacturer, landfill, wastewater treatment plant, firefighter training facility).
- **Living organisms,** including fish, animals and humans, where PFAS can build up and persist over time.

Because these chemicals have been used in an array of consumer products, most people have been exposed to them. Scientists have found PFOA and PFOS in the blood of nearly all the people they tested, but these studies show that the levels of PFOA and PFOS in blood have been **decreasing**. While consumer products and food are a large source of exposure to these chemicals for most people, drinking water can be an additional source in the small percentage of communities where these chemicals have contaminated water supplies. Such contamination is typically localized and associated with a specific facility, for example, an industrial facility where these chemicals were produced or used to manufacture other products or an airfield at which they

were used for firefighting.

Because PFAS6 is not well absorbed through the skin, routine showering/bathing are not a significant concern unless PFAS6 levels are very high. Shorter showers/baths, especially for children who may swallow water, or for people with severe skin conditions would limit any absorption from the water. Based on information from the Connecticut Department of Health, which is the only State to have issued guidance on the issue, water should not be used, long-term, for showering/bathing if the PFAS6 level exceeds 210 ppt.

For perspective:

One milligram per liter (mg/L or part per million - ppm) equals 1 inch in 16 miles
One microgram per liter (µg/L or part per billion - ppb) equals 1 inch in 16,000 miles
One nanogram per liter (ng/L or part per trillion - ppt) equals 1 inch in 16 million miles (approximately 600 times around the earth)

- **MassDEP Fact Sheet - Questions and Answers for Consumers** https://www.mass.gov/media/1854351
- **CDC ATSDR Information on PFAS for consumers and health professionals** https://atsdr.cdc.gov/pfas/index.html
- **Massachusetts Department of Public Health information about PFAS in Drinking Water** https://www.mass.gov/service-details/per-and-polyfluoroalkyl-substances-pfas-in-drinking-water

Notice is being sent by: The Town of Middleborough – October 15, 2021